



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/527,610	03/11/2005	Rudolf Pfaendner	BS/1-22749/CGM 517/PCT	5249
324	7590	12/13/2006	EXAMINER	
CIBA SPECIALTY CHEMICALS CORPORATION			MULLIS, JEFFREY C	
PATENT DEPARTMENT			ART UNIT	
540 WHITE PLAINS RD			PAPER NUMBER	
P O BOX 2005			1711	
TARRYTOWN, NY 10591-9005			DATE MAILED: 12/13/2006	

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/527,610

Applicant(s)

PFAENDNER ET AL.

Examiner

Jeffrey C. Mullis

Art Unit

1711

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 November 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) 10-15 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 3-11-05
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application
- ☐ Other: _____

Applicant's election of group I and polystyrene-polysiloxane-polystyrene block copolymer and polystyrene matrix in the reply filed on 11-24-06 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-8 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Graiver et al. (US 5,789,516). Patentees disclose the production of polystyrene-polysiloxane-polystyrene block copolymers (Example 1); note Example 4 where a branched A3B analog is disclosed and where a polystyrene block of number average molecular weight of 1250 can be calculated based on the common assumption in the art that 1 alkyl lithium polymerizes one chain. A number average molecular weight of about 6200 can therefore be calculated based on the A3B structure and molecular weight of the polystyrene blocks and weight of reactants. Given that most of the weight of the block copolymer is the

Art Unit: 1711

polystyrene blocks (which are known in the art to have narrow polydispersity when generated by alkyl lithium polymerization) and that the molecular weight of the block copolymer is far below applicants upper limit, it would appear that only an extraordinarily high PDMS polydispersity would result in weight average molecular weights higher than applicants upper limit of weight average molecular weight and the same would appear to be true of the Example 1 product. Such high polydispersities would appear to not even be possible even if it were assumed that the lowest molecular weight material was all present as the lowest molecular weight trifunctional species conceivable (a species with three dichlorosilane residues and one trichlorosilane residue). With re to applicants thermoplastic polymer, patentees disclose the addition of homopolymers which make up the individual blocks at column 6, lines 25-30. In any case, inefficient coupling of living chain ended alkyl lithium polymers is well known in the art and at least a little uncoupled polystyrene would be inherently present in Examples 1 and 4 as appears to be acknowledged by patentees at column 6, lines 13-16 of the patent.

When the reference discloses all the limitations of a claim except a property or function, and the Examiner cannot determine whether or not the reference inherently possesses properties which anticipate or render obvious the claimed invention, basis exists for shifting the burden of proof to applicant. Note In re Fitzgerald et al. 619 F. 2d 67, 70, 205 USPQ 594, 596, (CCPA 1980). See MPEP § 2112-2112.02.

Claim 1-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gaivier, cited above.

Patentees do not appear to disclose block copolymer amounts of claim 9 and arguably, the examiner is incorrect re applicants weight average molecular weights (although this seems unlikely). However, to find applicants amount of block copolymer would have been obvious to a practitioner having an ordinary skill in the art at the time of the invention in that to find the optimum or workable range of a result effective variable (in the case of the amount of block copolymer, the amount effective to achieve the end results disclosed at column 6, lines 25-40 of the patent) involves only routine skill absent any showing of surprising or unexpected results. To find use applicants weight average molecular weight in the composition of patentees would have been obvious to a practitioner having an ordinary skill in the art at the time of the invention in that to find the optimum or workable range of a result effective involves only routine skill absent any showing of surprising or unexpected results. In any case use of narrow polydispersities would result in applicants weight average molecular weights given applicants disclosed number average molecular weight would result in applicants weight average molecular weights and narrow polydispersities would be consistent with patentees' goal of a homogenous product (column 6, lines 13-17) and motivated to achieve patentees' goal, absent any showing of surprising or unexpected results.

Claims 1-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Kendrick et al. (US 3,691,257).

Patentees disclose a BAB block copolymer in Example one which is incorporated at a 1% level into polystyrene. Note that the molecular weight of the block copolymer is reported to be 10, in example 1 with a polydispersity less than 2 (column 6, line 46).

Claims 1-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mann et al (WO 96/39349).

Mann discloses a block copolymer blend having at least one polysiloxane block and which may have a polystyrene block (Abstract and Example 4). Applicants weight average molecular weights are disclosed at page 9, lines 6-17. The block copolymer may be a triblock in claim 17 of the patent. While no example exists in which all of applicants limitations are present in combination, it would have been obvious to a practitioner having an ordinary skill in the art at the time of the invention to arrive at applicants invention by selecting from the disclosures of patentees, absent any showing of surprising or unexpected results.

Any inquiry concerning this communication should be directed to Jeffrey C. Mullis
M-F, 9-5pm at telephone number 571 272 1075.

JCM

11-9-06

Jeffrey C. Mullis
J Mullis
Art Unit 1711

Jeffrey Mullis
Primary Examiner
Art Unit 1711

